

b
30-
Σ1

1. (Four Times Amended) A nickel-base alloy resistant to carburizing, oxidizing, nitriding and sulfidizing environments, consisting of, in weight percent, 42 to 58 nickel, 21.5 to 27 chromium, 12 to 18 cobalt, 4.5 to 9.5 molybdenum, 2 to 3.5 aluminum, 0.05 to 2 titanium, 0.005 to 0.1 yttrium and 0.01 to 0.6 zirconium, 0.01 to 0.15 carbon, 0 to 0.01 boron, 0 to 4 iron, 0 to 0.4 manganese, 0 to 1 silicon, 0 to 1 hafnium, 0 to 0.4 niobium, 0 to 0.1 nitrogen, incidental impurities and deoxidizers.

Σ2

4. (Three Times Amended) The alloy of claim 1 including 43 to 57 nickel and 12.5 to 17.5 cobalt.

Σ3
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f2

7. (Three Times Amended) A nickel-base alloy resistant to carburizing, oxidizing, nitriding and sulfidizing environments, consisting of, in weight percent, 43 to 57 nickel, 21.5 to 27 chromium, 12.5 to 17.5 cobalt, 4.5 to 9 molybdenum, 2.25 to 3.5 aluminum, 0.06 to 1.6 titanium, 0.01 to 0.08 yttrium and 0.01 to 0.5 zirconium, 0.01 to 0.14 carbon, 0.0001 to 0.01 boron, 0 to 3 iron, 0 to 0.4 manganese, 0.01 to 1 silicon, 0.01 to 0.8 hafnium, 0.00001 to 0.08 nitrogen, incidental impurities and deoxidizers.

Σ4
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f3

13. (Three Times Amended) A nickel-base alloy resistant to carburizing, oxidizing, nitriding and sulfidizing environment, consisting of, in weight percent, 44 to 55 nickel, 22 to 27 chromium, 13 to 17 cobalt, 5 to 8.5 molybdenum, 2.5 to 3.5 aluminum, 0.08 to 1.2 titanium, 0.01 to 0.07 yttrium, 0.02 to 0.5 zirconium, 0.01 to 0.12 carbon, 0.001 to 0.009 boron, 0.1 to 2.5 iron, 0 to 0.4 manganese, 0.02 to 0.5 silicon, 0 to 0.7 hafnium, 0.0001 to 0.05 nitrogen, incidental impurities and deoxidizers.

19. (Twice Amended) The nickel base alloy of claim 13 containing 2.75 to 3.5 aluminum, 0.003 to 0.008 boron, 0.02 to 0.1 carbon, 14 to 16 cobalt, 22 to 26 chromium, 0.5 to 2 iron, 0 to 0.5 hafnium, 5 to 8 molybdenum, 0.01 to 0.05 nitrogen, 0 to 0.2 niobium, 45 to 55 nickel, 0.05 to 0.4 silicon, 0.1 to 1 titanium, 0.01 to 0.06 yttrium and 0.02 to 0.4 zirconium.

20. (Once Amended) A nickel-base alloy resistant to carburizing, oxidizing, nitriding and sulfidizing environments consisting of, in weight percent, 45 to 55 nickel, 22 to 26 chromium, 14 to 16 cobalt, 5 to 8 molybdenum, 2.75 to 3.5 aluminum, 0.1 to 1 titanium, 0.01 to 0.06 yttrium, 0.01 to 0.4 zirconium, 0.02 to 0.1 carbon, 0.003 to 0.008 boron, 0.5 to 2 iron, 0 to 0.4 manganese, 0.05 to 0.4 silicon, 0 to 0.5 hafnium, 0 to 0.4 niobium, 0.01 to 0.05 nitrogen, incidental impurities and deoxidizers.

REMARKS

Claims 1, 4-7, 10-13 and 16-20 are pending in the present application. All claims stand rejected in the Office Action of April 22, 2002. The Examiner's reconsideration is respectfully requested in view of the amendments made hereinabove, taken with the following remarks.

Claims 1, 4-7, 10-13 and 16-20 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,258,317 (hereinafter the '317 patent). The Examiner notes that although the conflicting claims are not identical, they are not patentably distinct from each other because the alloy compositions in the instant claims are overlapped by the alloy compositions of the '317 patent. Upon allowance of the presently pending claims, Applicants are willing to